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09/843,363	04/25/2001	Joshua Klipper	100.164US01	8972

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EXAMINER	
HAILE, FEBEN	
ART UNIT	PAPER NUMBER
2616	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/843,363	KLIPPER ET AL.	
	Examiner	Art Unit	
	Feben M. Haile	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 March 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims D.2

4)☒ Claim(s) 3-31 is/are pending in the application.

4a) Of the above claim(s) ~~1 and 2~~ is/are withdrawn from consideration. D.2

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 3-31 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. In view of applicant's amendment filed March 27, 2007, the status of the application is still pending with respect to claims 3-31. 07.

2. The amendment filed is insufficient to overcome the rejection of claims 3-31 based upon Mitchell (6,442,134) in view of Cedrone et al. (6,538,987) as set forth in the last Office action because: the material added to the claims fail to further clarify a distinction between the Applicants invention and the cited references.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 3-31 rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchell (6,442,134) in view of Cedrone et al. (6,538,987), hereinafter referred to as Cedrone.

Regarding claims 3, 7, 11, 15, 23, and 25, Mitchell discloses at a head end node connected to a first and a second transmission ring **(figure 4, i.e. A)**: feeding all traffic on each of the first and second transmission on rings **(figure 4; TX all traffic on both rings)**; and summing all traffic received on the first and second transmission rings **(figure 4, i.e. A)**; at a plurality of remote nodes, each of the plurality of remote nodes

independently making an initial selection of either of the first of the second transmission ring to feed traffic and of either of the first or the second transmission ring to receive traffic **(figure 4, i.e. B-D and claim 1; wherein in the presence of a fault on one ring, each node can be configured to (1) receive packets on the other and (2) transmit packets on both rings)**: when a remote node detects a facility failure on a faulty transmission ring, transmitting forward alarm signals **(column 3 lines 45-51; any node that has detected a fault on one of its incoming links, sets an indication for the next node)** and globally selecting the faulty transmission ring to transmit traffic and the non-faulty transmission ring to receive traffic from the head end node **(claim 1; wherein in the presence of a fault on one ring, each node can be configured to (1) receive packets on the other and (2) transmit packets on both rings)** and when a remote node receives a forward alarm signal, passing the forward alarm signal **(column 3 lines 45-51; any node receiving a fault indication on its incoming link, sets another indication for the next node)**; and globally selecting the faulty transmission ring to transmit traffic and the non-faulty transmission ring to receive traffic from the head end node **(claim 1; wherein in the presence of a fault on one ring, each node can be configured to (1) receive packets on the other and (2) transmit packets on both rings)**.

However, Mitchell does not expressly suggest forward alarm signals on a faulty transmission ring and return alarm signals on a non-faulty transmission ring.

Cedrone teaches a system including a plurality of nodes interconnected by a primary and secondary ring **(figure 1)** where each node sends Continuity OAM cells on both rings **(figure 3)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method of transmitting the Continuity OAM cells on both rings taught by Cedrone into the ring network disclosed by Mitchell. The motivation for such a modification is to provide to the nodes, in a timely manner, error information from which the nodes can detect path degradation without significant delay.

Regarding claims 4 14, 17, and 31, Mitchell discloses when a remote node receives a return alarm signal, passing the return signal **(column 3 lines 45-51; any node receiving a fault indication on its incoming link, sets another indication for the next node)**; and globally selecting the non-faulty transmission ring to transmit traffic to the head end node and either of the first and second transmission rings to receive traffic from the head end node **(claim 1; wherein in the presence of a fault on one ring, each node can be configured to (1) receive packets on the other and (2) transmit packets on both rings)**.

Cedrone teaches passing the return alarm signal on the non-faulty transmission ring **(figure 3; each node sends Continuity OAM cells on both rings)**.

Regarding claims 5 and 18, Mitchell discloses wherein when a remote node detects a facility failure on a faulty transmission ring comprises when a remote node receives a ring level failure alarm on either of the first and the second transmission rings **(column 3 lines 45-51; any node that has detected a fault on one of its incoming**

links, sets an indication for the next node and any node receiving a fault indication on its incoming link, sets another indication for the next node).

Regarding claims 6, 9, 13, 19, 22, 24, 26, 28, and 30, Mitchell discloses at the head end node, terminating received forward and return alarm signals **(column 3 lines 45-51; any node that has detected a fault on one of its incoming links, sets an indication for the next node and any node receiving a fault indication on its incoming link, sets another indication for the next node)**.

Regarding claims 8 and 12, Mitchell discloses wherein the head end node sums traffic from the first and second transmission rings **(figure 4, i.e. A)**.

Regarding claims 10 and 21, Cedrone discloses receiving a ring level failure alarm on the faulty_transmission ring **(figure 3; each node sends Continuity OAM cells on both rings)**.

Regarding claims 16 and 20, Mitchell discloses at a central unit **(figure 4, i.e. A)**: feeding all traffic on each of the first and second transmission on rings **(figure 4; TX all traffic on both rings)**; and summing all traffic received on the first and second transmission rings **(figure 4, i.e. A)**; at a plurality of remote units, each of the plurality of remote units independently making an initial selection of either of the first of the second transmission ring to feed traffic and of either of the first or the second transmission ring to receive traffic **(figure 4, i.e. B-D and claim 1; wherein in the presence of a fault on one ring, each node can be configured to (1) receive packets on the other and (2) transmit packets on both rings)**: when a remote unit detects a facility failure on a faulty transmission ring, transmitting forward alarm signals **(column 3 lines 45-51; any**

node that has detected a fault on one of its incoming links, sets an indication for the next node) and globally selecting the faulty transmission ring to transmit traffic and the non-faulty transmission ring to receive traffic from the central unit **(claim 1; wherein in the presence of a fault on one ring, each node can be configured to (1) receive packets on the other and (2) transmit packets on both rings)** and when a remote unit receives a forward alarm signal, passing the forward alarm signal **(column 3 lines 45-51; any node receiving a fault indication on its incoming link, sets another indication for the next node)**; and globally selecting the faulty transmission ring to transmit traffic and the non-faulty transmission ring to receive traffic from the central unit **claim 1; wherein in the presence of a fault on one ring, each node can be configured to (1) receive packets on the other and (2) transmit packets on both rings)**.

However, Mitchell does not expressly suggest forward alarm signals on a faulty transmission ring and return alarm signals on a non-faulty transmission ring and wherein the forward and return alarm signals are ATM level operation, administration, and maintenance cells.

Cedrone teaches a system including a plurality of nodes interconnected by a primary and secondary ring **(figure 1)** where each node sends Continuity OAM cells on both rings **(figure 3)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method of transmitting the Continuity OAM cells on both rings taught by Cedrone into the ring network disclosed by Mitchell. The

motivation for such a modification is to provide to the nodes, in a timely manner, error information from which the nodes can detect path degradation without significant delay.

Regarding claims 27 and 29, Mitchell discloses a plurality of network elements including a central unit and a plurality of remote units **(figure 4, i.e. A-D)**, each of the plurality of remote units independently making an initial selection of either of the first or the second transmission ring to feed and of either of the first or the second transmission ring to receive traffic **(claim 1; wherein in the presence of a fault on one ring each node can be configured to (1) receive packets on the other and (2) transmit packets on both rings)**: a plurality of ring segments coupled between adjacent network elements to form first and second transmission rings, wherein the central unit transmits data on the first transmission ring in the clockwise direction and transmits the identical data on the second transmission ring in the counter clockwise direction **(figure 4; i.e. X & Y and column 2 lines 38-39; the same traffic is transmitted in opposite directions on two counter-rotating rings)**; wherein when a failure is detected on a faulty transmission ring, adjacent network elements transmit a forward alarm signal on the transmission ring on which the failure was detected **(column 3 lines 45-51; any node that has detected a fault on one of its incoming links, sets an indication for the next node)**, and wherein when a failure is detected or a forward alarm signal is received by a first remote unit, the first remote unit selects the faulty ring to transmit traffic and selects the non-faulty ring to receive traffic **(claim 1; wherein in the presence of a fault on one ring each node can be configured to (1) receive packets on the other and (2) transmit packets on both rings)**.

However, Mitchell does not expressly suggest forward alarm signals on a faulty transmission ring and return alarm signals on a non-faulty transmission ring.

Cedrone teaches a system including a plurality of nodes interconnected by a primary and secondary ring **(figure 1)** where each node sends Continuity OAM cells on both rings **(figure 3)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method of transmitting the Continuity OAM cells on both rings taught by Cedrone into the ring network disclosed by Mitchell. The motivation for such a modification is to provide to the nodes, in a timely manner, error information from which the nodes can detect path degradation without significant delay.

Response to Arguments

4. Applicant's arguments filed March 27, 2007 have been fully considered but they are not persuasive.

Applicant respectfully traverses that neither Mitchell and Cedrone suggest a ring network wherein each of a plurality of remote units independently makes an initial selection of a single transmission ring on which to feed traffic and an initial selection of a single transmission ring on which to receive traffic. The Examiner respectfully disagrees. Mitchell discloses a communication network comprising a plurality of nodes interconnected in a ring architecture, wherein in the presence of a fault on one ring each node can be configured to (1) receive packets on the other and (2) transmit packets on both rings **(claim 1)**. It would have been obvious to one having ordinary

skill in the art at the time the invention was made to free up bandwidth by not transmitting packets on both rings but selectively on one and since the non-faulty ring is already used for receiving one would gather to use the faulty ring for transmitting. Therefore as the claims are interpreted in their broadest sense, the Examiner believes that Mitchell in view of Cedrone indeed does render the Applicant's invention obvious.

Conclusion

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Feben M. Haile whose telephone number is (571) 272-3072. The examiner can normally be reached on 6:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

06/01/2007

DORIS H. TO
SUPERVISORY PATENT EXAMINER
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